REMARKS

Claims 1 to 3, 5 to 14, 17 to 22, 24 to 33, 36 to 41, 43 to 54, and 57 to 59 are pending in the application, of which claims 1, 13, 20, 32, 39 and 53 are independent. Favorable reconsideration and further examination are respectfully requested.

In the Office Action, claims 1, 2, 4, 5, 7 to 10, 13, 17, 20, 21, 24, 26 to 29, 39, 40, 45 to 48, 53, 56 and 57 were rejected under 35 U.S.C. §103 over U.S. Patent No. 6,363,319 (Hsu) in view of U.S. Patent No. 6,529,963 (Fredin); claims 3, 6, 14, 15, 22, 25, 33, 34, 41 to 44 and 54 were rejected under §103 over Hsu and Fredin in view of U.S. Patent No. 6,034,946 (Roginsky); and claims 11, 12, 18, 19, 30, 31, 37, 38, 49, 50 to 52, 58 and 59 were rejected under §103 over Hsu and Fredin in view of U.S. Patent No. 5,687,167 (Bertin). As shown above, Applicants have made some minor clarifying amendments to the independent claims. Even though amendments have been made, this should be viewed as a traversal of the rejections.

Amended independent claim 1 allocates a network resource to a data path. The method of claim 1 includes selecting a network path having a least number of hops to a destination, determining if a sufficient amount of the network resource is available in the network path to accommodate the data path, and deciding whether to allocate the network resource in the network path to the data path based on the amount of the network resource in the network path and the number of hops to the destination. If the network resource is not allocated to the datapath, the method is repeated one or more times, each starting with selecting a network path having a progressively larger number of hops to the destination

than a previous time. By using this "progressive" approach (e.g., progressively testing each network path starting with the shortest hop path), the invention reduces the need to perform extensive calculations of all network paths on the entire network "up front" in order to select a network path.

The applied art is not understood to disclose or to suggest the foregoing features of claim 1, particularly with respect to selecting a network path having a least number of hops to a destination, and repeating the method one or more times if the network resource is not allocated to the datapath, each time starting with selecting a network path having a progressively larger number of hops to the destination than a previous time.

As previously noted, Hsu describes routing a flow along a network path having sufficient bandwidth to accommodate the flow. To determine the sufficiency of the bandwidth, the Hsu system calculates a cost bias factor *for each link* in the network path before making a selection of the network path (see, e.g., column 3, lines 14 et seq. of Hsu). This approach requires extensive calculations "up front" in order to decide whether to allocate a resource to a data path (see, e.g., column 6, et seq. of Hsu).

In this regard, as correctly noted in the Office Action, column 5, lines 51 et seq. of Hsu does mention a number of hops. Furthermore, as also correctly noted on page 6 of the Office Action, "if a network has all router link costs of 1, the cost metric becomes equivalent to hop count and the least-cost path is simply the shortest-hop path". That notwithstanding, Applicants are not trying to patent merely selecting a path have a least number of hops. What Applicants are trying to patent here is the way of selecting that path, i.e., repeating the foregoing method one or more times, each time starting with

selecting a network path having a progressively larger number of hops to the destination than a previous time (among other things). As explained, this approach is significantly simpler than the approach presented in Hsu, which relies on complex calculations of all links in the network up front before allocating a resource to a network path.

Thus, the Applicants reiterate that Hsu does not disclose or suggest starting its method by selecting a network path having a least number of hops to a destination, and repeating its method one or more times if the network resource is not allocated to the datapath, each time starting with a network path having a progressively larger number of hops to the destination than a previous time.

Fredin, which merely references using a shortest hop routing algorithm, likewise does not disclose or suggest the foregoing features. In fact, Fredin mentions that its algorithm requires "global knowledge of the network topology", which seems to imply (although it is not clear) calculations similar to Hsu when determining a shortest hop path.

The remaining applied references have also been reviewed and are likewise not understood to disclose or to suggest the foregoing features of claim 1.

For at least the foregoing reasons, claim 1 is believed to be allowable. Amended independent claim 20 is a computer program claim that roughly corresponds to claim 1; and amended independent claim 39 is an apparatus claim that roughly corresponds to claim 1. These claims are also believed to be allowable for at least the reasons noted above.

Amended independent claim 13 defines a method of configuring a label switched path (LSP) through a multiprotocol label switching (MPLS) network. The method includes selecting a network path in the MPLS network that has a least number of hops to a

destination, determining if there is sufficient unused bandwidth on the network path to accommodate the LSP, and allocating the unused bandwidth of the network path to the LSP if there is sufficient unused bandwidth available. If the unused bandwidth is not allocated to the LSP, the method is repeated one or more times, each time using a network path having a progressively larger number of hops to the destination than a previous time.

As explained above with respect to claim 1, Hsu does not disclose or suggest at least selecting a network path in a network that has a least number of hops to a destination, and repeating the method one or more times if the unused bandwidth is not allocated, each time using a network path having a progressively larger number of hops to the destination than a previous time. Accordingly, claim 13 is believed to be allowable.

Amended independent claim 32 is a computer program claim that roughly corresponds to claim 13; and amended independent claim 53 is an apparatus claim that roughly corresponds to claim 13. These claims are also believed to be allowable for at least the reasons noted above.

Each of the dependent claims is also believed to define patentable features of the invention. Each dependent claim partakes of the novelty of its corresponding independent claim and, as such, has not been discussed specifically herein.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this

paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Applicants' undersigned attorney can be reached at the address shown below. All telephone calls should be directed to the undersigned at 617-521-7896.

Please apply any fees or credits due in this case to Deposit Account 06-1050 referencing Attorney Docket No. 10360-062001.

Respectfully submitted,

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